

What Is Claimed Is:

1. A fuel injector (1), in particular for the direct injection of fuel into the combustion chamber of a mixture-compressing internal combustion engine having external ignition, comprising a valve housing surrounding a nozzle body (3), and a seal (10) which seals the fuel injector (1) from a cylinder head (5) of the internal combustion engine, wherein the seal (10) has a sleeve-type design with a structured cross section and extends across the axial length of the nozzle body (3).
2. The fuel injector as recited in Claim 1, wherein the seal (10) is in the form of a corrugated tube.
3. The fuel injector as recited in Claim 1, wherein the seal (10) is in the form of a tube having protrusions (11).
4. The fuel injector as recited in Claim 3, wherein the protrusions (11) have a semicircular cross section.
5. The fuel injector as recited in Claim 1, wherein the seal (10) is pleated in the shape of expansion bellows.
6. The fuel injector as recited in Claim 1, wherein the seal (10) is made up of a plurality of layers (12).
7. The fuel injector as recited in one of the Claims 1 through 6, wherein the seal (10) has a cover plate (14) on a discharge-side end (13).

8. The fuel injector as recited in Claim 7,  
wherein the cover plate (14) has an opening (15).
9. The fuel injector as recited in Claim 8,  
wherein the opening (15) is used as passage for  
fuel jets injected into the combustion chamber.
10. The fuel injector as recited in Claim 7,  
wherein the cover plate (14) is provided with a  
plurality of spray-discharge orifices.
11. The fuel injector as recited in one of the Claims  
1 through 10,  
wherein the seal (10) is produced from a metal  
foil having an amorphous structure and smooth  
surface.
12. The fuel injector as recited in one of the Claims 1  
through 11,  
wherein a coolant is flowing through the cavities  
(16) formed between the seal (10) and the nozzle  
body (3) and/or between the seal (10) and the  
cylinder head (5).